

Claims

1. A method of folding plate-like elements (1) along a fold line (2) located between a first section (3) and a second section (4) of the flat element (1)  
  
by means of a first impression device (5) and a second impression device (6) which during folding contact diverse sides (3, 4) of the fold line (2) on the flat element (1),  
  
in which the second impression device (6) folds the second section (4) of the flat element (1) about the fold line (2) by means of a first force component standing perpendicular to the plane of the second section (4),  
  
and thereby producing a second force component extending in the plane of the second section (4) and acting in the direction towards the fold line (2), and pressing the first section (3) of the flat element (1) against the first impression device (5).
2. The method for folding plate-like elements (1) as set forth in claim 1, characterized in that the fold line (2) of the flat element (1) is produced to facilitate folding, more particularly in the form of a cross-sectional taper and/or perforation.
3. The method for folding plate-like elements (1) as set forth in claim 1 and 2, characterized in that during folding of the flat element (1) the second impression device (6) assumes a stationary position along which the second section (4) is guided.
4. The method for folding plate-like elements (1) as set forth in claim 1, characterized in that folding the plate-like elements (1) is done in a continuous operation.
5. A device (10) for folding plate-like elements (1) along a fold line (2) located between a first section (3) and a second section (4) of the flat element (1),

the device (10) comprising a first impression device (5) and a second impression device (6) contacting diverse sides (3, 4) of the fold line (2) during folding of the flat element (1),

characterized in that

the second impression device (6) is configured such that the contact force between the second impression device (6) and second section (4) of the flat element (1) comprises a first force component standing perpendicular to the plane of the second section (4),

and comprises a second force component extending in the plane of the second section (4) and acting in the direction towards the fold line (2).

6. The device (10) for folding plate-like elements (1) as set forth in claim 5, characterized in that the fold line (2) of the flat element (1) is produced to facilitate folding, more particularly in the form of a cross-sectional taper and/or perforation.
7. The device (10) for folding plate-like elements (1) as set forth in claim 5 or 6, characterized in that second force component standing in the plane of the second section (4) and acting in the direction towards the fold line (2) is a frictional force between the second impression device (6) and the second section (4).
8. The device (10) for folding plate-like elements (1) as set forth in claim 5, characterized in that during folding of the flat element (1) the second impression device (6) assumes a stationary position along which the second section (4) is guided.
9. The device (10) for folding plate-like elements (1) in a continuous operation as set forth in claim 5, characterized in that the second impression device (6) comprises at least one roller (6') which contacts the second section (4) during folding.
10. The device (10) for folding plate-like elements (1) in a continuous operation as set forth in claim 9, characterized in that the second impression device (6)

comprises a set of rollers with rollers (6') arranged in a train in the direction of the continuous operation, which contact the second section (4) during folding.

11. The device (10) for folding plate-like elements (1) in a continuous operation as set forth in claim 9, characterized in that the axes of the rollers (6') run substantially parallel to the second section (4) and assume no right angle relative to the fold line (2) during folding.
12. The device (10) for folding plate-like elements (1) in a continuous operation as set forth in claim 9, characterized in that the rollers (6') can be swivelled about the fold line (2) and/or rotated about an axis perpendicular to the second section (4).
13. The device (10) for folding plate-like elements (1) in a continuous operation as set forth in any of the claims 9 to 12, characterized in that the rollers (6') comprise contact surfaces having a high friction coefficient.
14. The device (10) for plate-like elements (1) in a continuous operation as set forth in claim 5 or 9, characterized in that the first impression device (5) comprises at least one roller (5') which contacts the first section (3) during folding.